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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,479	12/30/2003	Russell E. Blette	58846US002	8729
32692	7590	07/12/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			HOGAN, JAMES SEAN	
			ART UNIT	PAPER NUMBER
			3752	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/748,479	Applicant(s) BLETTE ET AL.	
	Examiner James S. Hogan	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5 and 6 is/are rejected.
- 7) ☒ Claim(s) 4 and 7-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/25/05, 5/6/04, + 3/16/2005</u>  | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5165,605 to Morita et al.

2. Regarding claim 1, Morita et al. ('605) teaches a liquid spray gun including a nozzle portion with a liquid passageway (30) leading to an outlet end (32). The body assembly has a first air passageway (39) extending from an inlet end (not numbered) to an outlet end (@23) at the outlet end of the nozzle portion, the outlet end of the first air passageway extends around the outlet end of the liquid outlet passageway (also @ 23) and is shaped to direct air under greater than atmospheric pressure against liquid flowing out of the outlet end of the liquid outlet passageway to propel the liquid away from the outlet end of the nozzle portion while shaping the liquid into a generally conical stream. The body assembly includes horns (40) projecting past the outlet end of the nozzle on opposite sides, and the body assembly has a second air passageway (44) extending from an inlet end through portions of the horns to outlet passageways having outlet apertures (43) spaced along the horns from the outlet end of the nozzle and facing opposite sides of a center axis (not shown, but defined as a common axis shared by valve member 14). The outlet passageways and apertures are non-circular (V-shaped notches for the apertures (43), and "L-shaped" as a passageway (44)) and shaped to direct air under greater than atmospheric pressure flowing through the

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second air passageway against opposite sides of a generally conical stream of liquid formed by air flowing through the first air passageway to reshape the generally conical stream of liquid into a wide elongate stream. As per claim 5, the first air passageway is shaped to direct air in a converging conical pattern against liquid exiting the outlet end of the liquid passageway (See Fig. 6A).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5165,605 to Morita et al., in view of U.S. Patent 5,584,433 to Nakagawa.

The rejection of claim 1 above serves as the basis for the following. Regarding claims 2 and 3, Morita et al. ('605) does not teach rectangular outlet passageways and apertures in the horns. Nakagawa ('433) teaches, in an embodiment defined in Figure 17, a rectangular nozzle tip for directing air into an exiting nozzle stream. It would have been obvious to one skilled in the art at the time the invention was made to have modified the nozzle shape of Morita et al. ('605) with the rectangular shape of Nakagawa ('433) in order to provide a liner-shaped flow of air to a conical stream of atomized liquid to aid in focusing the spray pattern of the liquid to a desired pattern.

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Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5165,605 to Morita et al., in view of U.S. Patent 4,917,300 to Gloviak et al.

The rejection of claim 1 above serves as the basis for the following. . Regarding claims 2 and 3, Morita et al. (605) does not teach the body assembly including a molded polymeric air cap having horns. Gloviak et al. ('300) teaches a polymeric air cap (76) having horns (84) with outlet passages and apertures being formed by molding (Col.1 line 50-55 and Col. 4, lines 24-28) and means of mounting onto a nozzle portion ((79). The air cap forms first (86) and second (74) air passageways. It would have been obvious to one skilled in the art at the time the invention was made to have modified the spray gun of Morita et al. (605) with the polymeric air-cap of Gloviak et al. ('300) in order to provide a spray gun with less expensive parts.

#### ***Allowable Subject Matter***

4. Claims 4 and 7-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows:

U.S. Patent 5,267,693 to Dickey, disclosing a non-stick connector block for a spray gun

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U.S. Patent No. 5,307,994 to Hieronymus, disclosing a spray gun vent

U.S. Patent No. 5,803,367 to Heard et al., disclosing a spray gun with polymeric internal parts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Hogan whose telephone number is (571) 272-4902. The examiner can normally be reached on Mon-Fri, 7:00a-4:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JSH  
07/05/2005

A handwritten signature in black ink, appearing to read 'D. Scherbel', with a stylized, cursive script.

**David A. Scherbel**  
**Supervisory Patent Examiner**  
**Group 3700**